DATE: **MAY 2 2 1985**

SUBJECT: Review of Analytical Data

/Htkhml—

AR0084

FROM: Harold Takenaka, Chief
Laboratory Support Section, Environmental Services Branch, OPM (P-3-1)

TO: Paula Bisson, Acting Chief
State Programs Section, Superfund Programs Branch, TWMD (T-4-1)

Attached are comments resulting from Region 9 review of the following analytical data:

SITE: San Gabriel, CA
CASE/SAS NO.: 3912/1528Y

LABORATORY: California Analytical
ANALYSIS: Selenium, hydrazine, perchlorate

SAMPLE NO.: 1528Y-5 thru 8; 1528Y-15,16,18 thru 20;
and 1528Y-26 thru 30.
COLLECTION DATE: 2/12; 3/7; and 3/15/85

REVIEWER: F. Schuette
TELEPHONE NUMBER: FTS 454-0923
(415) 974-0923

If there are any questions, please contact the reviewer.

Attachment

cc: Kathleen Shimmin, (T-3)
Duane Geuder, QA Officer, EPA-HQ (WH-548A)
Data Audit Team (LEMSCO), EMSL-LV

REPORT ON THE EVALUATION OF THE

CASE NO. 3912/1528Y

SAN GABRIEL, CA

DATA

by

DATA MANAGEMENT TEAM

LABORATORY SUPPORT SECTION

ENVIRONMENTAL SERVICES BRANCH

U.S. ENVIRONMENTAL PROTECTION AGENCY
215 Fremont Street
San Francisco, California 94105

May 20, 1985

Date

Reviewer

FTS Tel. No. 454-0923
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Case No.: 3912/1528Y
Site: San Gabriel, CA
Lab: California Analytical
Date of this Report: May 20, 1985
Reviewer: F. Schuette

<u>CONTENTS OF THIS REPORT</u>

This report covers the following three data packages.

1) Samples 1528Y-5 through 1528Y-8;

2) Samples 1528Y-15, 1528Y-16, and 1528Y-18 through 1528Y-20;
    and

3) Samples 1528Y-26 through 1528Y-30.

Case No.: 3912/1528Y
Site: San Gabriel, CA
Lab: California Analytical
Date of this Report: May 20, 1985
Reviewer: F. Schuette

I. INTRODUCTION

A. Four water samples, numbers 1528Y-5 through 1528Y-8, were submitted for the analyses of selenium, hydrazine, and perchlorate.

II. VALIDITY

A. Results reported for selenium in all samples are considered to be usable for limited purposes due to accuracy problems, as described below in Section III.A. Selenium may in fact be less than the detection limit, as reported, or the reported levels may underestimate the actual levels in the environmental samples because of poor analytical recovery of selenium.

B. Results reported for hydrazine in all samples are considered to be valid for all purposes.

C. Results reported for perchlorate in all samples are considered to be invalid for all purposes due to probable contamination, as described below in Section III.B. Although an objective evaluation indicates the perchlorate results to be invalid, the presence of perchlorate in the samples of other data packages in this Case suggests that perchlorate may actually be present in the environmental samples of this data package.

III. GENERAL COMMENTS

A. Accuracy, as measured by percent recoveries of analytes in matrix spike samples, meets criteria of 75-125%, except for the following:

Sample Number	Analyte	% Recovery
1528Y-6	Se	0

B. Perchlorate was measured in the field blank sample 1528Y-8 at 0.82 ppm, which is at a level equal to, or greater than, the perchlorate measured in the other three environmental samples. Therefore, the perchlorate results are considered unacceptable due to probable contamination.

C. All other quality control criteria are met and are considered acceptable.

Case No. 3912/1528Y
Site San Gabriel, CA
Lab California Analytical
Type of Analysis Selenium, Hydrazine, Perchlorate
Units of Concentration * See below
Date Samples Collected 02/12/85
Date Samples Rec'd at Lab 02/14/85
Date Data Package Rec'd at Region 9 05/14/85
Date of this Report 05/20/85
Reviewer F. Schuette

MAXIMUM HOLDING TIMES, ORGANICS	Contract	Actual
Volatile Organics, Water	7 days	days
Volatile Organics, Soil	10 days	days
ABN Extraction, Water	5 days	days
ABN Extraction, Soil	10 days	days
ABN Analysis	40 days	days
Pesticide Extraction, Water	5 days	days
Pesticide Extraction, Soil	10 days	days
Pesticide Analysis	40 days	days

MAXIMUM HOLDING TIMES, INORGANICS	Contract	Actual
Cyanide	14 days	days
Mercury	30 days	days
Other Metals	6 mos.	28 days

VALIDITY OF DATA

V - Indicates value reported is considered valid for all purposes.
X - Indicates value reported is considered invalid for all purposes
P - Indicates value reported is considered usable for limited purposes.

Sample #	Selenium		Hydrazine		Perchlorate	
1528Y-5 (1)	4.2u	P	1u	V	0.18	X
1528Y-6	4.2u		1u		0.85	
1528Y-7 (1)	4.2u		1u		0.17	
1528Y-8 (2)	4.2u		1u		0.82	
Units of Concentration	μg/L		ppm		ppm	
Detection Limits	4.2		1		0.02	

U = Indicates that the analyte was analyzed for but was not detected; report... with the detection
     limit value (e.g., 10U).
(1) = Samples 1528Y-5 and 1528Y-7 are field duplicate samples.
(2) = Sample 1528Y-8 is the field blank sample.

Case No.: 3912/1528Y
Site: San Gabriel, CA
Lab: California Analytical
Date of this Report: May 20, 1985
Reviewer: F. Schuette

I. INTRODUCTION

A. Five water samples, numbers 1528Y-15, 1528Y-16, and 1528Y-18 through 1528Y-20, were submitted for the analyses of selenium, hydrazine, and perchlorate.

II. VALIDITY

A. Results reported for selenium in all samples are considered to be usable for limited purposes due to accuracy problems, as described below in Section III.A. Selenium may in fact be less than the detection limit, as reported, or the reported levels may underestimate the actual levels in the environmental samples because of poor analytical recovery of selenium.

B. Results reported for hydrazine and perchlorate in all samples are considered to be valid for all purposes.

III. GENERAL COMMENTS

A. Accuracy, as measured by percent recoveries of analytes in matrix spike samples, meets criteria of 75-125%, except for the following:

Sample Number	Analyte	% Recovery
1528Y-16	Se	48

B. All other quality control criteria are met and are considered acceptable.

Case No. _3912 / 1528Y_
Site _San Gabriel, CA_
Lab _CAL_
Type of Analysis _Selenium, Hydrazine, Perchlorate_
Units of Concentration _* See below_
Date Samples Collected _03/07/85_
Date Samples Rec'd at Lab _03/08/85_
Date Data Package Rec'd at Region 9 _05/14/85_
Date of this Report _05/20/85_
Reviewer _F. Schuette_

MAXIMUM HOLDING TIMES, ORGANICS	Contract	Actual
Volatile Organics, Water	7 days	days
Volatile Organics, Soil	10 days	days
ABN Extraction, Water	5 days	days
ABN Extraction, Soil	10 days	days
ABN Analysis	40 days	days
Pesticide Extraction, Water	5 days	days
Pesticide Extraction, Soil	10 days	days
Pesticide Analysis	40 days	days

MAXIMUM HOLDING TIMES, INORGANICS	Contract	Actual
Cyanide	14 days	days
Mercury	30 days	days
Other Metals	6 mos.	12 days

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VALIDITY OF DATA
V – Indicates value reported is considered valid for all purposes.
X – Indicates value reported is considered invalid for all purposes
P – Indicates value reported is considered usable for limited purposes.

Sample #	Selenium		Hydrazine		Perchlorate			
528Y-15	4.2u	P	1u	V	0.68	V		
528Y-16 (1)	4.2u		1u		0.38			
528Y-18	.25u *		1u		0.81			
1528Y-19 (1)	4.2u		1u		0.38			
528Y-20 (2)	4.2u	↓	1u	↓	0.05u	↓	←blank	
Units of Concentration	µg/L		ppm		ppm			
Detection Limits	4.2		1		0.05			

* = A 1 to 5 dilution of the sample

U = Indicates that the analyte was analyzed for but was not detected; reported with the detection limit value (e.g., 10U).
(1) = Samples 1528Y-16 and 1528Y-19 are field duplicate samples.
(2) = Sample 1528Y-20 is the field blank sample.

Case No.: 3912/1528Y
Site: San Gabriel, CA
Lab: California Analytical
Date of this Report: May 20, 1985
Reviewer: F. Schuette

I. INTRODUCTION

A. Five water samples, numbers 1528Y-26 through 1528Y-30, were submitted for the analyses of selenium, hydrazine, and perchlorate.

II. VALIDITY

A. Results reported for selenium in all samples are considered to be usable for limited purposes due to accuracy problems, as described below in Section III.A. Selenium may in fact be less than the detection limit, as reported, or the reported levels may underestimate the actual levels in the environmental samples because of poor analytical recovery of selenium.

B. Results reported for hydrazine in all samples are considered to be valid for all purposes.

C. Results reported for perchlorate are considered to be usable for limited purposes due to probable contamination as described below in Section III.B.

III. GENERAL COMMENTS

A. Accuracy, as measured by percent recoveries of analytes in matrix spike samples, meets criteria of 75-125%, except for the following:

Sample Number	Analyte	% Recovery
1528Y-27	Se	30

B. Perchlorate was measured in the field blank sample 1528Y-29 at 0.42 ppm, which is at a level of approximately one-half to one-fifth the perchlorate levels measured in the environmental samples. Therefore, the perchlorate levels in these samples appear, in part, to be due to probable contamination.

C. All other quality control criteria are met and are considered acceptable.

Case No. 3912/1528Y
Site San Gabriel, CA
Lab CAL
Type of Analysis Selenium, Hydrazine, Perchlorate
Units of Concentration ✗ See below
Date Samples Collected 03/14/85
Date Samples Rec'd at Lab 03/15/85
Date Data Package Rec'd at Region 9 05/14/85
Date of this Report 05/20/85
Reviewer F. Schuette

MAXIMUM HOLDING TIMES, ORGANICS	Contract	Actual
Volatile Organics, Water	7 days	_days
Volatile Organics, Soil	10 days	_days
ABN Extraction, Water	5 days	_days
ABN Extraction, Soil	10 days	_days
ABN Analysis	40 days	_days
Pesticide Extraction, Water	5 days	_days
Pesticide Extraction, Soil	10 days	_days
Pesticide Analysis	40 days	_days

MAXIMUM HOLDING TIMES, INORGANICS	Contract	Actual
Cyanide	14 days	_days
Mercury	30 days	_days
Other Metals	6 mos.	25 days

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VALIDITY OF DATA
V – Indicates value reported is considered valid for all purposes.
X – Indicates value reported is considered invalid for all purposes
P – Indicates value reported is considered usable for limited purposes.

Sample #	Selenium		Hydrazine		Perchlorate	
1528Y-26 (1)	4.2u	P	1 u	V	1.8	P
1528Y-27	4.2u		1 u		1	
1528Y-28 (1)	25u *		1 u		2.2	
1528Y-29 (2)	4.2u *		1 u		0.42	
1528Y-30	25u * ↓		1 u ↓		1.8 ↓	
Units of Concentration	µg/L		ppm		ppm	
Detection Limits	4.2		1		0.02	

✗ = A 1 to 5 dilution of the sample.

U = Indicates that the analyte was analyzed for but was not detected, report with the detection limit value (e.g., 10U).
(1) = Samples 1528Y-26 and 1528Y-28 are field duplicate samples.
(2) = Sample 1528Y-29 is the field blank sample.

KEY TO IDENTIFICATION OF WELLS SAMPLED FOR PERCHLORATE ION
AS IDENTIFIED IN DATA QUALITY ASSURANCE REVIEW REPORTS

SAMPLE NO.	WELL OWNER	WELL OWNER DESIGNATION	RECORDATION NUMBER
1528Y-5	Valley County Water District	N. Maine E.	1900027
1528Y 6	Valley County Water District	Morada	1900029
1528Y-7	Duplicate of 1528Y-5		
1528Y-8	Field Blank		
1528Y-15	City of Azusa	#5	1902537
1528Y-16	Azusa Valley Water Company	#4	1902115
1528Y-18	Azusa Valley Water Company	#7	1902425
1528Y-19	Duplicate of 1528Y-16		
1528Y-20	Field Blank		
1528Y-26	City of Glendora	#3G	1901525
1528Y-27	City of Glendora	#7G	1900831
1528Y-28	Duplicate of 1528Y-26		
1528Y-29	Field Blank		
1528Y-30	Azusa Valley Water Company	#6	1902117
1629Y-7	Miller Brewing	#2	8000076
1629Y-8	City of Azusa	#4	1902536
1629Y-9	Transit Mix	#2	1900038
1629Y-10	County of Los Angeles	#1SF	8000070
1629Y-11	Duplicate of 1629Y-7		
1629Y-12	Field Blank		
1629Y-16	Covina Irrigating Company	Contract	1900881
1629Y-17	Duplicate of 1629Y-16		
1629Y-18	Field Blank		
1629Y-22	Valley County Water District	Lante	8000060
1629Y-23	Duplicate of 1629Y-22		
1629Y-24	Field Blank		